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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,220	12/19/2000	Philip W. Doberenz	5038-39	7641

20575 7590 03/02/2004

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EXAMINER

BAYARD, EMMANUEL

ART UNIT	PAPER NUMBER
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2631

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DATE MAILED: 03/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/741,220

Applicant(s)

DOBERENZ, PHILIP W.

Examiner

Emmanuel Bayard

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 13 recites the limitation "the quadrature signals" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 14-15 are likewise rejected because they depend on a base rejected claim.

Claim Objections

4. Claim 14 is objected to because of the following informalities: in line 1, after claim replace "14" with ---13---. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ino U.S. Patent No 5,861, 825.

As per claims 1, 8 and 13, Ino discloses a method for decoding a pair of quadrature signals, the method comprising: a) obtaining a first sample (see col.4, lines 40, 45 and col.5, lines 30, 35); b) determining a last direction and a last state using the first sample (col.4, lines 20-67 and col.5, lines 10-67); c) obtaining a second sample, wherein a current state is determined using the second sample (see col.4, lines 47, 56 and col.5, lines 42, 53; d) generating an output responsive to the last sample, a last direction and their current state (see col.4, lines 14-15 and col.5, lines 5-6 and col.8, lines 3-5 .

As per claim 2, Ino teaches the method is performed for an X (horizontal) axis pair and a Y (vertical) axis pair (see abstract).

As per claim 3, Ino teaches a memory table is considered as the claimed (looking up) the output in a positive look-up table if the direction is positive; an a memory table is considered as the claimed (looking up) the output in a negative look-up table if the direction is negative (see figs. 2-3, 7-9 and col.6, lines 63-65 and col.11, lines 40-55 and col.16, lines 45-53 and col.17, lines 30-35).

As per claim 4, Ino teaches the quadrature signals are generated by a user input device (see col.5, lines 5-7 and col.6, line 45).

As per claim 5, Ino inherently includes a determining motion and rotation direction from the output.

As per claim 6, Ino teaches there are more than one positive look-up tables and more than one negative look-up tables and the selection of a look-up table depends upon a number of states that were skipped (see figs. 2-3, 7-9 and col.6, lines 63-65 and col.11, lines 40-55 and col.16, lines 45-53 and col.17, lines 30-35).

As per claim 7, Ino teaches, wherein the method further comprises summing outputs generated during a predetermined period, and transmitting a sum for each axis of movement at the end of the period (see col.8, lines 55-67).

As per claim 9, Ino teaches, wherein the method further comprises summing output signals for a predetermined length of time (see col.2, lines 1-7 and col.8, lines 55-67).

As per claim 10, Ino teaches providing an output signal to a magnetic disk is considered as the claimed (host computer) (see col.1, line 19) comprised of a sum of outputs (see col.8, lines 55-67).

As per claim 11, Ino teaches the last direction is one of either positive or negative direction . (see figs. 2-3, 7-9 and col.6, lines 63-65 and col.11, lines 40-55 and col.16, lines 45-53 and col.17, lines 30-35).

As per claim 12, Ino teaches, wherein different lookup tables are used depending upon the last direction being positive or negative (see figs. 2-3, 7-9 and col.6, lines 63-65 and col.11, lines 40-55 and col.16, lines 45-53 and col.17, lines 30-35).

As per claim 14, Ino teaches a computer readable medium (see col.1, lines 18-20) and inherently includes, wherein the software code is contained in a downloadable file.

As per claim 15, Ino teaches, wherein the software code, when executed further results in: a) summation of outputs for a predetermined period of time, thereby creating a net change sum; (see col.8, lines 55-67) and b) transmitting (see col.8, lines 55-67) the net change sum to a host computer.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hillis et al U.S. patent No 6,127,948 teaches a bi-directional synthesis of pseudorandom sequences.

Friedmann et al U.S. Patent No 6,223,053 B1 teaches an Universal radio for use in various cellular.

Edmonston et al PUB US 2001/0044919 A1 teaches a method and apparatus for improved performance.

Sadler et al U.S. patent No 6,592,036 B2 teaches an apparatus and method for scanning a surface.

Ino U.S. Patent No 5,638,063 teaches a code modulation.

Fujikawa et al U.S. patent No 6,198,429 B1 teaches radar and like systems. (*)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 703 308-9573. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

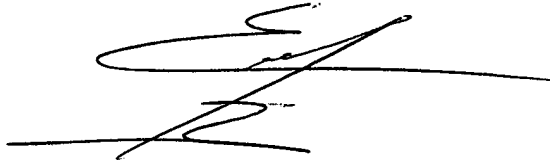
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammed Ghayour can be reached on 703 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Emmanuel Bayard
Primary Examiner
Art Unit 2631

Tuesday, February 24, 2004

A handwritten signature in black ink, appearing to be 'E. Bayard', written over a horizontal line.